



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D044-715-011
Job Sheet 199931



Part No: D044-715-011

Job Qty: 2 pcs

Part Name: R44 Cargo Mirror



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 9/5/19

Job Tracking No:

Due Date: 9/18/19

Created By: Marie Lajeunesse

Type: SOLD

Description: ORDER 19261

Note: DWG D3243 REV A, IIN-D044-715 REV A IPP Rev:A 04.02.18 New issue KJ/JLM IPP Rev:B 06-04-28
Manufactured on Water Jet JLM IPP Rev:C 08-06-10 as per ECN1195p DD verified by:EC IPP Rev:D 11.05.04
remove FE-032-EF DD verified by:EC

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
110	Packaging 1 - Pick Kit	2 pcs ✓		9/18/19	0.00	0.00	Packaging 1 - 1		
							Packaging 1 - 2		
							Packaging 1 - 3		
							Packaging 1 - 4		
							Packaging 1 - 5		
							Packaging 1 - 6		
							Packaging 1 - 7		
							Packaging 1 - 8		
							Packaging 1 - 9		
							Packaging 1 - 10		
							Packaging 1 - 11		
							Packaging 1 - 12		
							Packaging 1 - 13		
							Packaging 1 - 14		
							Packaging 1 - 15		
							Packaging 1 - 16		
							Packaging 1 - 17		
							Packaging 1 - 18		
							Packaging 1 - 19		
							Packaging 1 - 20		
							Packaging 1 - 21		
							Packaging 1 - 22		
							Packaging 1 - 23		
							Packaging 1 - 24		
							Packaging 1 - 25		
							Packaging 1 - 26		
							Packaging 1 - 27		
							Packaging 1 - 28		
							Packaging 1 - 29		
							Packaging 1 - 30		



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 813 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S214840



Part: D044-715-011

Job No: 199931

Serial No/Batch: S214840

Revision:

Inspector:

Exp Date:

Instructions: TC STC SH04-17 Issue 1 of 1 FAA STC SR019371

120 QC 4	2 pcs	9/18/19	0.00 0.00	Packaging 1 - 31	
				Packaging 1 - 32	
				Packaging 1 - 33	
				Packaging 1 - 34	
				Packaging 1 - 35	
				Packaging 1 - 36	
				QC 4 - 28	
				QC 4 - 58	
				QC 4 - 69	
				QC 4 - 9	
				QC 4 - 46	
				QC 4 - 68	
				QC 4 - 72	
				QC 4 - 74	
				QC 4 - 75	
				Packaging 3 - 1 - B4B	
				Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B	
				Packaging 3 - 4 - B4B	
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
135 DC - 1 - B4B	2 pcs	9/18/19	0.00 0.00	DC - 1 - B4B	
				DC - 2 - B4B	
140 QC 21 - FG	2 pcs	9/18/19	0.00 0.00	QC 21 - FG - 21	
				QC 21 - FG - 70	
				QC 21 - SA - 53	

Mare B

9/18/2019

NL

DAS

21

SEP 19 2019

DAS

21

SEP 19 2019

S-59

Part Op 110 - (Pick Kit)

Descriptions: 120 - (QC4- 100% Inspect kits for completeness)

130 - (Identify as per dwg & Stock Location: _____) Identify and pack for shipping as per PPP D044-715-011

LOCATION: FG011

135 - (Document Control) Photocopy bluefile & type labels per PPPD044-715-011 CHG003

140 - (QC21- Final Inspection - Work Order Release)

011849

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
ALS4-1032-130	Rivnut	8 Ea (4 ea) ✓	110-Packaging 1 - Pick Kit	S057257 ✓
AN3-4A	Bolt	8 Ea (4 ea) ✓	110-Packaging 1 - Pick Kit	S167263 ✓
AN526C1032R10	Screw	8 Ea (4 ea) ✓	110-Packaging 1 - Pick Kit	S071664 ✓
D1048	Clamp SA124	4 pcs (2 ea) ✓	110-Packaging 1 - Pick Kit	S114661 ✓
D1049	Saddle	4 pcs (2 ea) ✓	110-Packaging 1 - Pick Kit	S152184 ✓
D2010-104	Arm	2 pcs (1 ea) ✓	110-Packaging 1 - Pick Kit	S164054(1) ✓
D2011-101	Mirror 6"	2 pcs (1 ea) ✓	110-Packaging 1 - Pick Kit	S184871 ✓
D3243-041	Bracket	2 pcs (1 ea) ✓	110-Packaging 1 - Pick Kit	S199658 ✓
NAS1149D0332J	Washer	8 Ea (4 ea) ✓	110-Packaging 1 - Pick Kit	S178378 ✓

S2128376

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
110-Packaging 1 - Pick Kit	ALS4-1032-130	8	6,256	0
	AN3-4A	8	287	0
	AN526C1032R10	8	65	0
	D1048	4	8	0
	D1049	4	8	0
	D2010-104	2	1	0
	D2011-101	2	20	0
	D3243-041	2	6	0
	NAS1149D0332J	8	2,208	0

Part Specifications

Specifications could not be found.

Plex 9/5/19 7:30 AM Dart.lajeunesse.marie

Entered: _____ Date: _____

WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐



Job: _____ Part No. _____		DISPOSITION Rework ☐ ☐ ☐ Scrap ☐ ☐ ☐ Use-as-is ☐ ☐ ☐		DEPARTMENT/PROCESS Skid-tube ☐ ☐ ☐ ☐ ☐ Machining ☐ ☐ ☐ ☐ ☐ Large Fab ☐ ☐ ☐ ☐ ☐ Cross tube ☐ ☐ ☐ ☐ ☐ Small Fab ☐ ☐ ☐ ☐ ☐ Finishing ☐ ☐ ☐ ☐ ☐ Eng. (Non-AW) ☐ ☐ ☐ ☐ ☐ Prod. Eng. Coord. ☐ ☐ ☐ ☐ ☐ Rec/Store/Packaging ☐ ☐ ☐ ☐ ☐ Engineering ☐ ☐ ☐ ☐ ☐ Water Jet ☐ ☐ ☐ ☐ ☐ Supplier ☐ ☐ ☐ ☐ ☐ Quality ☐ ☐ ☐ ☐ ☐		MRB (QS1042) ☐ ☐ ☐ ☐ ☐	
Date : _____		Sequence #: _____		QTY Affected : _____			
Description Work Order Deviation		Disposition		Completed By			
Root Cause Operator ☐ ☐ ☐ Manufacturing Process ☐ ☐ ☐ Equip/Tooling ☐ ☐ ☐ Handling/Preservation ☐ ☐ ☐ Material ☐ ☐ ☐ Product Improvement ☐ ☐ ☐ Process Improvement ☐ ☐ ☐ Human Factors ☐ ☐ ☐		FAULT CATEGORY Contamination ☐ ☐ ☐ Misaligned/off center ☐ ☐ ☐ BOM/Route ☐ ☐ ☐ Broken/Damage/Defect ☐ ☐ ☐ Incomplete/Unclear Instructions ☐ ☐ ☐ Drill Holes ☐ ☐ ☐ Fit/Function ☐ ☐ ☐ Pressure/Forced ☐ ☐ ☐ Bending ☐ ☐ ☐ Crushing ☐ ☐ ☐ Cracks ☐ ☐ ☐ Crimp/Kink/Ripple/Wave/Twist ☐ ☐ ☐ Marks/Chatter ☐ ☐ ☐ Mislabeled ☐ ☐ ☐		Power Loss/Surge ☐ ☐ ☐ Folio/Program ☐ ☐ ☐ Grain Direction ☐ ☐ ☐ Weld ☐ ☐ ☐ Wrong Stock Pulled ☐ ☐ ☐ Out of Sequence ☐ ☐ ☐ Off-set/Set-up ☐ ☐ ☐			
Positioned Wrong ☐ ☐ ☐ Outside Tolerance ☐ ☐ ☐ Drawing ☐ ☐ ☐ Finish ☐ ☐ ☐ Part Lost/Missing ☐ ☐ ☐ Misread ☐ ☐ ☐		Other/Details:		QC / QA Coordinator			

2. GENERAL NOTES

COMPATIBILITY

Compatibility of this installation with the aircraft is the **responsibility of the installer**. Ensure that this installation does not conflict with a previous modification.

CONTINUING AIRWORTHINESS

This installation should be maintained in accordance with the Instructions for Continued Airworthiness **ICA-D044-715**.

3. INSTALLATION INSTRUCTIONS

To install the Dart Cargo Mirror Installation on the R44 skidtube:

1. Locate the D3243-041 Bracket with approximately 0.38" (10mm) space between the top of the skidtube and the bracket, as shown in Figure 2. Transfer drill the 4 holes from the bracket to the centerline of skidtube and enlarge to 10/64" (Ø0.297"). Deburr holes and wet install ALS7-1032-130 inserts using MIL-P-85582 or MIL-P-23377 primer.
2. Install the D3243-041 Bracket on the skidtube using the AN3 hardware. The bolts should be sealed with Sikaflex-241/-291 or Proseal 890 or MIL-S-8802 Class 'B2' sealant before installing as per Figure 2.
3. Install remaining hardware per Figure 2 as required. Adjust the angle of the D2010-104 Arm and tighten the AN526C1032R10 screws to secure arm.
4. To adjust the mirror: loosen (DO NOT REMOVE) the three adjustment screws shown in Figure 2, reposition the mirror, then tighten the screws.

4. WEIGHT AND BALANCE

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D044-715-011	1.3 lb	41.7 in	54.2 lb-kG	32.0 in	41.6 in-lb
Cargo Mirror Installation	0.59 kg	1.06 m	0.63 m-kG	0.81 m	0.48 m-kG

5. PARTS LIST

Qty	Part Number	Description
X	D044-715-011	CARGO MIRROR INSTALLATION
2	D1048	Clamp
2	D1049	Saddle
1	D2010-104	Arm
1	D2011-101	Mirror
1	*D3014-1	Locknut
1	D3243-041	Bracket
4	ALS7-1032-130	Insert (or AKS7-1032-130, AKS4-1032-130, ALS4-1032-130)
4	AN3-4A	Bolt
4	AN526C1032R10	Screw (or AN526-1032R10)
4	AN960JD10L	Washers
1	*AN960JD416L	Washer

* PARTS ARE INCLUDED WITH D2011-101 MIRROR

• COPYRIGHT © 2004 BY DART AEROSPACE LTD •
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

Revision: A

Date: 04.01.20

Change Record

Part Number D044-715-011
Description B44 CARGO MIRROR

Page 1 of 1[illegible]